AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	13

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0005	11-Aug-2004		04-B-0060 (Evans)

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
USACE, CONTRACTING DIVISION ATTN: CEMVN-CT, ROOM 172 7400 LEAKE AVE. NEW ORLEANS LA 70118-3651	W912P8	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912P8-04-B-0060
	X	9B. DATED (SEE ITEM 11) 02-Jul-2004
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The above numbered solicitation for Flood Control of the Mississippi River and Tributaries, Mississippi Delta Region, LA, Davis Pond Freshwater Diversion, West/Cypress Guide Levees - Floodwall (Sta. 0+00 C/L to Sta. 384+00 C/L), St. Charles Parish, LA, is amended as shown on the attached pages.

BID OPENING DATE

A Bid Opening Date of 24 August 2004, 2:00 PM local time at place of bid opening, is established.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Officer)	16C. DATE SIGNED 11-Aug-2004

SECTION 00700

Page 98, paragraph entitled 52-236-4, PHYSICAL DATA, subparagraph (c)(1). In the last line of the 1st paragraph after the words “levee crown for access along the West Guide Levee. “ add “The interior borrow canal may be used for transporting vinyl sheets to points of placement in lieu of levee crown. The Contractor shall “light load” for flotation and shall be responsible for removal of obstructions or debris that may restrict access within the canal.”

SECTION 02413

Delete this section in its entirety and substitute the attached revised Section 02413 therefore.

Section Table of Contents

SECTION 02413 - VINYL SHEET PILING

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PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all plant, equipment, labor and materials and performing all operations in connection with the installation of vinyl sheet piling and connection of vinyl to steel sheeting in accordance with these specifications and applicable drawings. At no additional cost to the Government, new Z-type steel sheet pile may be substituted for the vinyl sheet pile. Steel sheet piling shall be in accordance with Section 02411, and at no additional cost to the Government.

1.2 REFERENCES

The following American Society for Testing and Materials (ASTM) standards of the issues listed below and referred to thereafter by basic designation only from a part of this specification to the extent indicated by the references thereto:

ASTM D 256	(1999) Determining the Pendulum Impact Resistance of Notched Specimens of Plastics
ASTM D 638	(1999) Tensile Properties of Plastics
ASTM D 790	(1999) Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM D 792	(1998) Density and Specific Gravity (Relative Density) of Plastics by Displacement
ASTM D 1784	(1999a) Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (PVC) Compounds
ASTM D 4226	(1998a) Impact Resistance of Rigid Poly (Vinyl Chloride) (PVC) Building Products
ASTM D 4216	(1991) Rigid Poly (Vinyl Chloride)(PVC) and Related Plastic Building Products Compounds

1.3 QUANTITIES

Sheet piling quantities is based on the number of piles driven and the theoretical driving width.

1.4 MEASUREMENT AND PAYMENT

1.4.1 Measurement

1.4.1.1 Driven Vinyl Sheet Piling

Measurement of driven vinyl sheet piling will be by the square foot of piling acceptably installed. The length of each pile driven will be measured to the nearest tenth of a linear foot and converted to square feet for payment purposes. The square footage will be determined by multiplying the number of piles times the measured length acceptably driven below the cut- off elevation shown on the drawings times the theoretical driving width of the pile. The number of piles paid for shall not exceed the number of piles indicated on the approved shop drawings. The portion of any pile driven below the tip elevation shown on the approved shop drawings will not be measured for payment unless over driving is directed by the Contracting Officer.

1.4.1.2 Pulled Piles

Piles ordered pulled will be measured for payment by the square foot. Square footage will be determined by multiplying the theoretical driving width of the pile by the length pulled above the cut-off elevation shown on the drawings. Redriving of such piles, when required, shall be measured for payment by the square foot, which shall be determined by multiplying the theoretical driving width of the pile by the length redriven below the cut-off elevation shown on the drawings.

1.4.1.3 Void Backfill

No separate measurement will be made for void backfill.

1.4.1.4 Sheet Pile Bolted Connection with Steel Sheet Pile

No separate measurement will be made for work and materials associated with sheet pile bolted connection with steel sheet pile.

1.4.1.5 Installation of Government – Furnished Vinyl Sheet Pile

Measurement of Government – furnished vinyl sheet piling will be by the square foot of piling acceptably installed.

1.4.2 Payment

1.4.2.1 Sheet Piling

Payment for Contractor–furnished vinyl sheet piling, acceptably installed and measured in accordance with above paragraph 1.4.1.1, will be made at the applicable contract unit price per square foot for “Sheet Pile, 12.0’ Long” and “Sheet Pile, 11.0’ Long”. Price and payment shall constitute full compensation for work covered under

this section, and all equipment / tools / mandrel / and work associated with removing subsurface obstructions or debris and other work incidental to acceptably installing the Contractor – furnished vinyl sheet piling including sheet pile connections.

1.4.2.2 Pulled Piles

Piles which are directed to be pulled and found to be in good condition will be paid for at the contract price for furnishing and driving the pile in its original position. The cost of pulling will be paid for at 25 percent of the contract unit price and when such piles are redriven, the cost of redriving will be paid for at 25 percent of the contract unit price for that portion of the pile acceptably redriven below the cut-off elevation. When piles are pulled and found to be defective and/or damaged due to Contractor negligence, no payment will be made for originally furnishing and driving such piles, nor for the operation for pulling. Piles replacing defective or damaged piles will be paid for at the applicable contract unit price. Piles which are pulled and found to be damaged through no fault of the Contractor, will be paid for at the applicable contract unit price for originally installing the damaged pile plus 25% of the applicable contract unit price for the cost of pulling. Subsequently, when a new pile is furnished and driven, it shall be paid for at the applicable contract unit price.

1.4.2.3 Sheet Pile Bolted Connection with Steel Sheet Pile

Payment for connecting vinyl sheets to steel sheets at pipeline crossing will be made at the contract lump sum price for “Sheet Pile Bolted Connection”. Price and payment shall constitute full compensation for all labor, hardware, equipment and materials required to complete tie-in with existing sheet pile wall.

1.4.2.4 Installation of Government – Furnished Vinyl Sheet Pile

Payment for Government – furnished vinyl sheet piling, acceptably installed and measured in accordance with above paragraph 1.4.1.5, will be made at the contract unit price per square foot for "Installation of Government – Furnished Vinyl Sheet Pile". Price and payment shall constitute full compensation for work covered under this section, and all equipment / tools / mandrel / and work associated with removing subsurface obstructions or debris and other work incidental to acceptably installing the Government – furnished vinyl sheet piling including sheet pile connections.

1.5. QUALITY ASSURANCE

Requirements for material tests, workmanship and other measures for quality assurance shall be as specified herein.

1.6 SUBMITTALS

The Contractor shall submit a listing of the minimum characteristic values stated in the table (paragraph 2.1.1), descriptions of sheet piling driving equipment to be used

on Cypress alignment and the West Guide Levee alignment, sketch drawing indicating starting and stopping points of work, Certificates of Analysis stating the Certified Virgin Material used in the manufacturing of the sheet pile was purchased from an ISO certified raw material supplier, sheet pile driving records and other submittals to the Contracting Officer for approval, prior to the commencement of work. Submittals, associated work and materials not satisfactory to the Contracting Officer shall be rejected.

1.6.1 Equipment Descriptions

The Contractor shall submit for approval by the Contracting Officer, prior to commencement of work, a written statement addressing the appropriate installation equipment / tools / mandrel and driving method as dictated by the clay soil conditions. The project alignment is divided in two segments based on access to exisiting levee. The West Guide Levee shall use a land-based operation for driving sheeting. The Cypress Lumber Canal Guide Levee will require a marshbuggy operating from the interior borrow area and ponding slope of levee. The Contractor (or Sub-Contractor) shall have had prior 5-years experience with driving vinyl sheeting and shall provide a list of previous two job/s that demonstrate a satisfactory installation method. In addition, the Contractor shall coordinate with the vinyl manufacturer their recommendations concerning the proper marsh buggy with hydraulics for vibratory hammer operation, plus size of steel mandrel to be used in conjunction with driving vinyl sheets.

1.6.2 Shop Drawings

Shop drawings for sheet piling shall be submitted for approval and shall show the one 90-degree corner (vicinity of Sta. 107+31 C/L) detail and driving sequence as stated in Special Work Requirements, Section 01100. Shop drawings shall include sheet pile connection to steel sheeting details, the number of sheets per reach as stated in Special Work Requirements, Section 01100, and description of temporary guide structures for installing piling. The Contractor shall provide a description of the method for handling piling to prevent permanent deflection, distortion or damage to piling interlocks, plus type of transportation vehicle for bringing piles to point of installation.

1.6.3 Materials Test Certificates

The Contractor shall submit to the Contracting Officer material test certificates for each shipment and identified with the specific lots prior to installation of the piling. A Certificate of Analysis (CA) from an ISO certified raw material source must be obtained for every individual batch of material used that accounts for the entire mass of material used in manufacturing and must be submitted by the sheet piling manufacturer with the delivery of each lot of sheet piling to the Contracting Officer. Prior to installation, sheet pile bundles are subject to random sample testing for conformance with ASTM D 4216. Upon request by the Contracting Officer, the

Contractor shall procure the services of a laboratory to perform test for verification of manufacturer's process. The laboratory selected by the Contractor shall have qualified personnel who have previous experience in performing the required ASTM tests and shall be able to furnish test results within 4 – 6 days of receiving random sample. All testing shall be performed at the Contractor's expense. Testing results shall be returned to the Contracting Officer for review and approval. If any test results are obtained that are unsatisfactory, the Contractor shall submit to the Contracting Officer for approval a plan for corrective action. All corrective actions shall be performed at the Contractor's expense."

1.6.4 Driving Records

Records of the sheet piling driving operations shall be submitted after driving is completed. These records shall provide a system of identification which shows the disposition of approved piling in the work, driving equipment performance data, piling dimensions and top and bottom elevations of installed piling.

1.7 QUALITY ASSURANCE

1.7.1 General

The Contractor shall establish and maintain quality control for pile driving operations to assure compliance with contract and manufacturer's specifications and maintain records of his quality control for all construction operations including, but not limited to, the following:

(1) Accurate location, alignment and plumb ness of piling.

(2) Full and proper engagement of interlocks.

(3) Driving (installation rate).

(4) Final position; depth of penetration; tip and cut- off elevations.

(5) Uplift and vertical tolerances after driving.

(6) Location and elevation of any obstruction encountered and action directed by Contracting Officer.

(7) Pulled piles and redriving.

(8) Sand backfill of template voids

(9) Stockpiling and storage.

(10) Removal and disposal of damaged piles.

1.7.2 Reporting

The original and two copies of these records , as well as the records of corrective action taken, shall be furnished the Government daily. Format of the report shall be as prescribed in Section 01451, "CONTRACTOR QUALITY CONTROL".

1.8 DELIVERY, STORAGE AND HANDLING

Materials delivered to the site shall be new and undamaged and shall be accompanied by certified reports. Sheet piling shall be stored and handled in the manner recommended by the manufacturer to prevent permanent deflection, distortion or damage to the interlocks. Storage of sheet piling should also facilitate required inspection activities.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Poly (Vinyl Chloride) Sheet Pile

The sheet piling can be manufactured by either a mono-extrusion or co-extrusion process meeting the following parameters:

(1) Mono-extrusion - All sheet piling manufactured by mono-extrusion must be manufactured exclusively, wholly, and completely from Certified Virgin Materials as defined by this specification.

(2) Co-extrusion - Co-extrusion can only be used to manufacture sheet piling if all outer surfaces are covered by vinyl cap-stock comprising exclusively, wholly, and completely Certified Virgin Materials as defined by this specification. Recycled or reprocessed materials of any kind can not be used in any amount in the outer surfaces or cap-stock of a co-extruded sheet piling.

The exposed exterior surface of the vinyl sheet pile shall be protected from damaged sustained from exposure to the environment. The vinyl sheet pile UV protection shall be obtained by the addition of UV inhibitors to the vinyl resin. The UV inhibitor shall be added to a resin, which is composed completely of Certified Virgin Materials meeting the cell classification performance standard of 1-41444-33-0101, as defined by ASTM D4216. The Certified Virgin Material shall be provided by a ISO certified raw material supplier and be accompanied by a Certificate of Analysis verifying the raw material meets all requirements of this specification. Certified virgin materials of different sources or composition cannot be mixed in any amount during or prior to manufacturing. Material shall have uniform physical characteristics throughout the material. A bolted connection is required at each end of the existing steel sheet pile wall as indicated on the drawings. The values stated in the table specifying the

characteristics of the vinyl sheet pile are specified as the minimum characteristic required.

Characteristic	Units	Value *
DESIGN STRESS	PSI	3,200
SECTION MODULUS	In^3/ft	22.5 +/- 15%
STRENGTH RATING	FT-LB per FT	6000 +/- 15%
THICKNESS	Inches	0.400 +/-10%
WEIGHT / FOOT	Pounds per Square Foot	5.4 +/-15%
MOMENT OF INERTIA	In^4/ft	90
IMPACT STRENGTH	In-lb/in2	15,000 +/- 10%
MAXIMUM DEPTH	inches	9

Poly (Vinyl Chloride) sheeting shall be manufactured as to interlock with the existing PZ-22 interlocks in the field. The sheeting shall be homogeneous throughout and free from visible cracks, flaws, foreign inclusions or other injurious defects. The sheeting shall be uniform in physical properties and the color “Gray”. All sheet pile shall be provided in two lengths, full 11-foot lengths and full 12-foot lengths with no splices.

REACHES OF SHEET PILE WALL ARE AS FOLLOWS:
(See the Section 01100 provision entitled, Special Work Requirements)
Sta. 0+80 C/L to Sta. 108+22 C/L
LENGTH = 12.0’
TOP OF WALL = EL. 5.5
TIP ELEVATION = EL. -6.5

Sta. 115+68 C/L to Sta. 169+38 C/L
(exclude pipeline wall between Sta. 137+48 & Sta. 138+73)
LENGTH = 11.0’
TOP OF WALL = EL. 6.5
TIP ELEVATION = EL. -4.5

Sta. 183+83 C/L to Sta. 220+24 C/L
(exclude pipeline wall between Sta. 190+09 & Sta. 196+99)
LENGTH = 11.0’
TOP OF WALL = EL. 6.5
TIP ELEVATION = EL. -4.5

2.1.2 Sheet Pile Sample

The Contractor shall provide a sample of the vinyl sheet pile and submit to the Contracting Officer for approval, prior to driving operations / installation.

2.1.3 Field Molded Sealant

The sealant shall conform to ASTM C 920, Type M, Grade NS, Class 25, and shall be used for bolted connection detail only.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Placing and Driving

3.1.1.1 Placing

Pilings shall be carefully located as shown on the drawings. Pilings shall be placed as true to line as possible. Suitable temporary templates or guide structures shall be provided to insure that the piles are placed and driven to the correct alignment. Pilings properly placed and driven shall be interlocked throughout their length with adjacent pilings to form a continuous diaphragm throughout the length or run of piling wall.

3.1.1.2 Driving

The Contractor is advised that buried stumps, roots and similar debris will be encountered periodically on the sheet pile wall alignment and that the Contractor shall determine and use the proper size/model of equipment to counteract difficult driving and above obstructions. All piles shall be driven to the depths shown on the drawings and shall extend to the cut-off elevation indicated. A tolerance of 1-1/2 inches above or below the indicated cut-off elevation will be permitted. Pilings damaged during driving or driven out of interlock shall be removed and replaced at the Contractor's expense. All piles shall be driven without the aid of a water jet, unless otherwise authorized by the Contracting Officer. A mandrel is required for this driving operation due to debris that may be encountered. Adequate precautions shall be taken to insure that piles are driven/installed vertically and horizontally plumb. Sheet piling shall not be driven more than 1/4” inch per foot out of plumb in the plane of the wall nor more than 1/8-inch per foot out of plumb perpendicular to the plane of the wall. If at any time the forward or leading edge of the piling wall is found to be out-of- plumb more than 1/4 inch per foot in the plane of the wall or 1/8- inch per foot perpendicular to the plane of the wall, the assembled piling shall be driven to the required depth and tapered pilings shall be provided and driven to interlock with the out-of- plumb leading edge or other approved corrective measures shall be taken to insure the plumbness of succeeding pilings.

The maximum permissible taper for any tapered piling shall be 1-1/4 inch per foot of length. Unless specifically indicated otherwise, each run of piling wall shall be driven to grade progressively from the start and pilings in each run shall be driven alternately in increments of depth to the required depth or elevation.

On each day of sheetpile driving, the Contractor shall stab only the number of piles that can be driven to grade by the end of the day, and all piling stabbed shall be driven to grade by the end of each working day except that the last two piles may remain tapered up to receive the next days piles. If the piling next to the one being driven tends to follow below final grade, it shall be pinned or bolted to the next adjacent piling. No pile shall be driven to a lower elevation than those behind it in the same run except when the piles behind it cannot be driven deeper due to an obstruction that is encountered. In case of an obstruction, piling/s will be allowed to remain above final grade until the obstruction is identified by the Contractor and a remedy is provided by the Contracting Officer. The Contractor may be required to excavate to the obstruction, remove the obstruction and backfill to match adjacent ground with uncompacted fill obtained from the excavation of the obstruction and the borrow areas shown on the drawings. If obstruction restricts driving operations and can not be removed by excavation, the Contractor shall be directed by the Contracting Officer to either cut the pile/s to design grade or provide the Contractor an alignment change that by-passes the obstruction. Payment for the additional labor for removal of obstructions / debris and materials necessitated by such changes will be borne by the Contractor with no additional cost to the Government.

3.1.1.3 Government Furnished Sheet Pile

The Contractor shall install Government Furnished sheet pile (see the Section 00700 clause entitled “Government-Furnished Property (FAR 52-245-4)) along the upper portion of the west guide levee prior to installing Contractor furnished sheet pile material along the lower portion of the alignment.”

3.1.2 Reserved

3.1.3 Inspection of Driven Piling

The Contractor shall inspect the interlocked joints of driven pilings extending above ground. Pilings found to be damaged during driving or driven out of interlock shall be removed and replaced.

3.1.4 Pulling and Redriving

The Contractor may be required to pull selected piles after driving, for test and inspection, to determine the condition of the piles. Any pile so pulled and found to be damaged to the extent that its usefulness in the structure is impaired shall be removed from the work and the Contractor shall furnish and drive a new pile to replace the damaged pile. Piles pulled and found to be in satisfactory condition shall be redriven.

3.1.5 Steel Mandrel Void - Backfill

Where voids adjacent to the vinyl sheet piling are induced by driving a steel mandrel sheet, the Contractor shall backfill voids with a mixture of Portland cement (one-part cement) without aggregate, 3 parts bentonite and 6 parts sand with no less than 12 pounds of solids per gallon mixed with water from the adjacent borrow area to form a slurry mix. All voids shall be backfilled by the end of each work day.

3.1.6 Sheet Pile Bolted Connection With Steel Sheet Pile

The Contractor shall install a bolted connection from the vinyl to the steel sheet pile at Chevron Texaco floodwall for both ends. The Contractor shall remove and replace upon completion the existing guard post located on each end of exiting wall. The Contractor shall excavate to expose an 8-foot length of the existing sheeting. Holes in the steel sheets shall be either burned or drilled at 8-inch intervals as indicated on the drawings. The holes for the vinyl sheets shall only be hand-drilled at intervals to match steel alignment holes. Field molded sealant shall be added between steel and vinyl sheet along the full length of the pile prior to bolting assembly in accordance with the drawings. Backfill material shall be a combination of removed embankment and material from the adjacent borrow area, if necessary. Compaction of backfill may require hand tamping.